AMENDMENTS TO THE SPECIFICATION

Please amend the following sections of the as-filed Specification, as shown below. Applicants include herewith a marked up version of the replacement paragraph(s), underlined and/or bracketed text indicating insertions, and strikethrough and/or double brackets indicating deletions.

[0028] An indicator detection value conditioned on a given fading channel or spatial channel realization ($I_{DET|h}$) may be calculated for each channel realization, i.e., each RACH that is to be evaluated during system simulation. Detection indicator values calculated for all fading channel or spatial channel realizations may be averaged, and a link level performance result, such as an unconditional detection probability for all fading or spatial channel realizations, may be determined based on the average detection indicator value. FIG. 3 is block diagram illustrating RACH preamble detection in accordance with the exemplary embodiments of the present invention. Referring to FIG. 3, from channel parameters (i.e., E_c/N_0, fading channel coefficient, spatial channel coefficient, etc.) and parameters from various temporal and spatial processing algorithms, an instantaneous received detection metric ('metric') may be measured or estimated (using Equations 6 and 7). Such temporal and spatial processing algorithms are described in detail in co-pending and commonly assigned U.S. Patent Application Serial No. (unassigned), filed August 29, 2003 to Lee et al., entitled, "METHOD AND ARRANGEMENT FOR DETECTING A RANDOM ACCESS CHANNEL PREAMBLE USING MULTIPLE

ANTENNA RECEPTION IN A COMMUNICATION SYSTEM", thus a detailed

explanation is omitted here for purposes of clarity.

[0040] The ~~parameters~~ detection metric for the underlying Gaussian random

variable σ^2 and the noncentrality parameter s^2 are given by expressions (6) and

(7):